

This listing of claims will replace all prior versions,
and listings, of claims in the application:

1 Claim 1 (currently amended): A stereoscopic image
2 projection device comprising:

3 a plurality of image projecting means which, on the
4 basis of image signals for one eye and another eye,
5 project images for the one eye and the other eye which
6 have parallax;

7 image display means for displaying the images
8 projected from the plurality of image projecting means;

9 viewing means for dividing and enabling viewing, at
10 the one eye and at the other eye respectively, of
11 two-dimensional images for the one eye and the other eye
12 which are displayed on the image display means; and

13 correction processing means for carrying out
14 correction processing on at least one of image signals
15 for the one eye and the other eye, on the basis of an
16 amount of correction of image distortion due solely to
17 orientations and positions of each of the plurality of
18 image projecting means with respect to image display
19 means and determined on the basis of the image displayed
20 on the image display means.

1 Claim 2 (original): A stereoscopic image projection
2 device according to claim 1, further comprising:

3 pick-up means for correction for picking-up an image
4 projected on the image display means, for correction; and

5 correction computing means for determining, by
6 computation, an amount of correction of image distortion
7 from picked-up image data,

8 wherein the correction processing means carries out
9 correction processing on image signals for the one eye
10 and the other eye or on an image signal for one of the
11 one eye and the other eye, on the basis of the amount of
12 correction determined by the correction computing means.

1 Claim 3 (original): A stereoscopic image projection
2 device according to claim 2, further comprising:

3 a plurality of first polarizing means through which
4 passes only light of a given polarization direction for
5 each eye from image lights for the one eye and the other
6 eye which are projected from the plurality of image
7 projecting means,

8 wherein, by using polarized light, the viewing means
9 divides and enables viewing, at the one eye and at the
10 other eye respectively, two-dimensional images for the
11 one eye and the other eye which are displayed on the
12 image display means.

1 Claim 4 (previously presented): A stereoscopic image
2 projection device comprising:

3 a plurality of image projecting means which, on the
4 basis of image signals for one eye and another eye,
5 project images for the one eye and the other eye which
6 have parallax;

7 a plurality of first polarizing means through which
8 passes only light of a given polarization direction for
9 each eye from image lights for the one eye and the other
10 eye which are projected from the plurality of image
11 projecting means;

12 image display means for displaying the images
13 projected from the plurality of image projecting means;

14 viewing means for dividing and enabling viewing, at
15 the one eye and at the other eye respectively, of
16 two-dimensional images for the one eye and the other eye
17 which are displayed on the image display means, and
18 wherein, by using polarized light, the viewing means
19 divides and enables viewing, at the one eye and at the
20 other eye respectively, two-dimensional images for the
21 one eye and the other eye which are displayed on the
22 image display means;

23 pick-up means for correction for picking-up an image
24 projected on the image display means, for correction,
25 wherein the pick-up means for correction includes:

26 pick-up means having functions of carrying
27 out pick-up of an image for correction and
28 temporarily accumulating image data;

29 a second polarizing means through which
30 only light of a given polarization direction
31 passes;

32 rotating means for automatically rotating
33 the second polarizing means a predetermined
34 angle;

35 rotation control means for controlling of
36 the rotating means; and

37 pick-up times counting means for sensing
38 completion of pick-up of the image for
39 correction, counting a number of times pick-up
40 is carried out, and stopping pick-up by the
41 pick-up means when the number of times pick-up
42 is carried out has reached a given number of
43 times;

44 correction computing means for determining, by
45 computation, an amount of correction of image distortion
46 from picked-up image data; and

47 correction processing means for carrying out
48 correction processing on at least one of image signals
49 for the one eye and the other eye, on the basis of an
50 amount of correction of image distortion determined on
51 the basis of the image displayed on the image display
52 means and wherein the correction processing means carries
53 out correction processing on image signals for the one
54 eye and the other eye or on an image signal for one of
55 the one eye and the other eye, on the basis of the amount
56 of correction determined by the correction computing
57 means.

1 Claim 5 (original): A stereoscopic image projection
2 device according to claim 2, further comprising:

3 a plurality of first shutter means for repeatedly
4 carrying out, at high speed, operations of allowing
5 passage of and blocking passage of image lights for the
6 one eye and the other eye which are projected from the
7 plurality of image projecting means;

8 shutter controlling means for controlling operations
9 of the plurality of first shutter means and the pick-up
10 means for correction; and

11 correction start signal generating means for
12 generating a correction start signal, and for making the
13 shutter control means and the pick-up means for
14 correction start operations for correction.

1 Claim 6 (original): A stereoscopic image projection
2 device according to claim 5, wherein the image viewing

3 means has a plurality of second shutter means for the one
4 eye and the other eye which repeatedly open and close at
5 high speed synchronously with the plurality of first
6 shutter means for the one eye and the other eye.

1 Claim 7 (previously presented): A stereoscopic image
2 projection device comprising:

3 a plurality of image projecting means which, on the
4 basis of image signals for one eye and another eye,
5 project images for the one eye and the other eye which
6 have parallax;

7 a plurality of first shutter means for repeatedly
8 carrying out, at high speed, operations of allowing
9 passage of and blocking passage of image lights for the
10 one eye and the other eye which are projected from the
11 plurality of image projecting means;

12 image display means for displaying the images
13 projected from the plurality of image projecting means;

14 viewing means for dividing and enabling viewing, at
15 the one eye and at the other eye respectively, of
16 two-dimensional images for the one eye and the other eye
17 which are displayed on the image display means;

18 pick-up means for correction for picking-up an image
19 projected on the image display means, for correction,
20 wherein the pick-up means for correction includes:

21 pick-up means having functions of carrying
22 out pick-up of an image for correction and
23 temporarily accumulating image data;

24 pick-up control means for controlling the
25 pick-up means; and

26 pick-up times counting means for sensing
27 completion of pick-up of the image for

28 correction, counting a number of times pick-up
29 is carried out, and stopping pick-up by the
30 pick-up means when the number of times pick-up
31 is carried out has reached a certain number of
32 times;

33 shutter controlling means for controlling operations
34 of the plurality of first shutter means and the pick-up
35 means for correction;

36 correction start signal generating means for
37 generating a correction start signal, and for making the
38 shutter control means and the pick-up means for
39 correction start operations for correction;

40 correction computing means for determining, by
41 computation, an amount of correction of image distortion
42 from picked-up image data; and

43 correction processing means for carrying out
44 correction processing on at least one of image signals
45 for the one eye and the other eye, on the basis of an
46 amount of correction of image distortion determined on
47 the basis of the image displayed on the image display
48 means, wherein the correction processing means carries
49 out correction processing on image signals for the one
50 eye and the other eye or on an image signal for one of
51 the one eye and the other eye, on the basis of the amount
52 of correction determined by the correction computing
53 means.

1 Claim 8 (original): A stereoscopic image projection
2 device according to claim 1, wherein the image projecting
3 means carries out image display with a number of primary
4 colors which is greater than a usual number of three
5 primary colors, by the image projecting means utilizing

6 plural devices which emit lights of primary colors having
7 different wavelength bands, in order to display an image
8 for one eye.

1 Claim 9 (currently amended): A correction amount
2 computing device of a stereoscopic image projection
3 device having:

4 a plurality of image projecting means which, on the
5 basis of image signals for one eye and another eye,
6 project images for the one eye and the other eye which
7 have parallax;

8 image display means for displaying the images
9 projected from the plurality of image projecting means;

10 viewing means for dividing an enabling viewing, at
11 the one eye and at the other eye respectively,
12 two-dimensional images for the one eye and the other eye
13 which are displayed on the image display means; and

14 correction processing means for carrying out
15 correction processing on at least one of image signals
16 for the one eye and the other eye, on the basis of an
17 amount of correction of image distortion determined on
18 the basis of the image displayed on the image display
19 means,

20 wherein the correction amount computing device of a
21 stereoscopic image projection device comprises:

22 pick-up means for correction for picking-up an image
23 projected on the image display means, for correction; and

24 correction computing means for computing a
25 correction amount for correcting image distortion from
26 picked-up image data, and outputting the correction
27 amount to the correction processing means wherein the
28 image distortion to be corrected by the correction amount

29 is due solely to orientations and positions of each of
30 the plurality of image projecting means with respect to
31 image display means.

1 Claim 10 (original): A correction amount computing
2 device of a stereoscopic image projection device
3 according to claim 9, further comprising:

4 a plurality of polarizing means through which passes
5 only light of a given polarization direction for each eye
6 from image lights for the one eye and the other eye which
7 are projected from the plurality of image projecting
8 means,

9 wherein, by using polarized light, the viewing means
10 divides and enables viewing, at the one eye and at the
11 other eye respectively, two-dimensional images for the
12 one eye and the other eye which are displayed on the
13 image display means.

1 Claim 11 (original): A correction amount computing
2 device of a stereoscopic image projection device
3 according to claim 9, further comprising:

4 a plurality of shutter means for repeatedly carrying
5 out, at high speed, operations of allowing passage of and
6 blocking passage of image lights for the one eye and the
7 other eye which are projected from the plurality of image
8 projecting means;

9 shutter controlling means for controlling operations
10 of the plurality of shutter means and the pick-up means
11 for correction; and

12 correction start signal generating means for
13 generating a correction start signal, and for making the

14 shutter controlling means and the pick-up means for
15 correction start operations for correction.

1 Claim 12 (original): A correction amount computing
2 device of a stereoscopic image projection device
3 according to claim 9, wherein the image projecting means
4 carries out image display with a number of primary colors
5 which is greater than a usual number of three primary
6 colors, by the image projecting means utilizing plural
7 devices which emit lights of primary colors having
8 different wavelength bands, in order to display an image
9 for one eye.

1 Claim 13 (previously presented): The stereoscopic image
2 projection device of claim 1 wherein the image signals
3 for one eye and another eye include a first image signal
4 and a second image signal,

5 wherein the plurality of image projection means
6 include a first projection means receiving the first
7 image signal but not the second image signal, and a
8 second projection means receiving the second image signal
9 but not the first image signal, and

10 wherein images projected by the first and second
11 projection means combine to define a stereoscopic image
12 on the image display means.

1 Claim 14 (currently amended): The stereoscopic image
2 projection device of claim 1 wherein the plurality of
3 image projection means are arranged with respect to one
4 another and with respect to the image display means to
5 protect project images having areas, and

6 wherein a majority of the areas of said images
7 overlap on the image display means.

1 Claim 15 (previously presented): The stereoscopic image
2 projection device of claim 1 wherein the plurality of
3 projectors are angled with respect to one another so that
4 the projected images are non-parallel, and

5 wherein the image distortion corrected by the
6 correction processing means is parallax error due to the
7 angling of the projectors.